

killed. The action of the bees, on opening the hive, should be carefully noted. If they are clustering closely on the cage, curving their bodies as if wishing to sting, and showing excitement, encasing, as it were, the cage and queen, they will not accept her if liberated. In this case close the hive, and leave it for another twelve hours. Finally you will succeed. This operation should be performed without gloves. The bees are too intent upon the queen's motions to sting the fingers, which may be gently inserted among an angry cluster with perfect impunity. In many hundreds of introductions I have never received a single sting on the fingers.

A queen's action has much more influence on the manner of her reception than her peculiar scent. If we can only get her to behave quietly, and to receive in good part the advances of her new subjects, the battle is won. Bees will accept a newly-hatched queen from another hive, although it has the scent peculiar to its own hive; and this they do because the young creature has no fear, and displays no animosity.

Fourthly. *The Peet Cage*, which is used, and highly recommended, by Mr. A. I. Root, is an American invention, and consists of a piece of wood  $2\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$  in., pierced by a  $1\frac{1}{2}$  in. circular hole, and by two smaller ones adjoining, which contain food. One side of the cage is covered by wire cloth, and the other by a tin slide. Tin spikes 2 in. long, moving on a pivot, are attached to each side of the cage, which is largely used in America both as a travelling and an introducing cage. For introducing, the directions are as follows:—Take a frame with brood about to hatch, brush the bees away from a portion in the centre. Let the cage, in which are the queen and a few bees, cover a small part of the comb that has honey in it, with the tin slide next the cells, and push the tin spikes through the comb. Draw out the slide, and the queen and accompanying bees are on the comb. Press in the cage a little closer, and bend the spikes on the opposite side of the comb, to hold the cage firmly in position. Return the frame to its place in the hive and close up. Two days afterwards examine, and if the queen is still in the cage, cut a small hole through the comb from the opposite side to the honey-cells, and close the hive for two or three days. The bees will soon eat away the honey and let themselves in, or let the queen out. It is further added that there is scarcely any risk with this cage and method of introducing, which I also can affirm in the case of the few queens I have introduced according to the directions given, all being well received. The old queen should be

removed and the new one introduced at the same operation, thus causing little loss of time.

Fifthly. *The Bessinger Cage* is also largely used in America, and is considered there to be one of the best introducing cages. It is formed of wire-cloth, in shape of the tin cover of an oblong box, and its dimensions are  $3 \times 4$  in., with sides  $\frac{3}{4}$  in. deep. To introduce by this cage, remove the old queen, and having put the new queen, with a few of her subjects, under the cage, on a piece of cardboard, place it on a comb containing brood and sealed honey, from which the bees have been previously brushed off. Arrange that the cage partly covers sealed honey near to brood and withdraw the cardboard, pressing the sides of the cage into the comb, and down to the septum. Next cut a half-inch circle, with a small penknife, from the side opposite to the cage, through the septum, and leave the circular plug of honey-comb formed thereby, hanging loosely in its place so that it can be easily removed by the bees. Finding that their queen is missing, and intent on removing the oozing honey, the bees will soon gnaw around the plug, and one of them finding its way into the cage, and being followed by others all will present their antennæ and their tongues, feeding the queen and showing their pleasure at having released her. Finding herself at liberty the queen will quietly leave the cage, and will enter upon her duties as the mother of the hive.

In conclusion, I may say that I never use the cage where there is an absence of brood, in its various stages, in the hive; I never liberate a queen before ascertaining the presence or absence of queen-cells, cutting them out when found; and I always cage my queens indoors, so that in the event of one escaping, on flying to the window she is easily recaptured—indeed, before releasing a queen from a pipe-cover cage, I often remove the hive to my bee-room, since a young queen will sometimes take wing on being set free from the cage.

So interesting and extensive is the subject of queen introduction, that having already, I fear, tried your patience to the utmost, I will only add that I have simply given my own experience of the methods enumerated, without bias towards any particular system, its inventors, or advocates. Success or failure generally determines a man's partiality for one system or another. Let us all be courteous and tolerant to each other, using no hard words, and imputing no unworthy motives, since the method which succeeds in one case may, perhaps, fail in another, so numerous and various are the conditions with which we have to deal.